

—Standard Valves—

4102-D Valve
-E Valve
-G Valve

4102-D, -E AND -G VALVES

TRIODES.

4102-D, -E, -G valves have similar characteristics.

4102-E valve has a filament designed to reduce sputter noise.

4102-G valve is similar to 4102-E valve but has the anode lead brought out through the stem to increase grid-anode insulation.

SPECIFICATION.

Cathode.

Oxide coated filament.

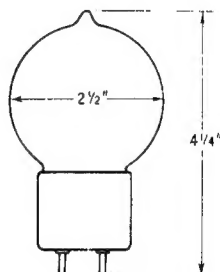
Constant current type.

Base.

Medium 4-pin bayonet thrust.

Dimensions.

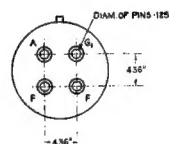
Overall length	$4\frac{1}{4}"$ (10.8 cms.)
Bulb diameter	$2\frac{1}{2}"$ (6.4 cms.)
Net weight	0.14 lbs. (65 gms.)



Constants.

Filament current	0.97 amps.
Nominal filament voltage	2 volts
*Impedance	60,000 ohms
*Amplification factor	30
*Mutual conductance	0.5 mA. per volt
Grid-anode capacity	5.6 $\mu\mu\text{F}$.
Anode-filament capacity	2.3 $\mu\mu\text{F}$.
Grid-filament capacity	3.8 $\mu\mu\text{F}$.

* at anode current of 0.75 mA.



LIMITING CONDITIONS FOR SAFE OPERATION.

Maximum direct anode voltage	190 volts
Maximum direct anode current	1.5 mA.

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TYPICAL OPERATING CONDITIONS.

Anode voltage	Grid Bias	Anode current	Amplification factor	Anode resistance	Load resistance	Output voltage	Second harmonic
volts	volts	milliamps		ohms rp	R	peak volts	db
130	—2.0	0.36	29.4	80,000	R=rp R=3rp R=5rp	27 38 41	20 24 25
130	—1.5	0.58	29.8	63,000	R=rp R=3rp R=5rp	20 30 34	26 31 33
130	—1.0	0.85	30.1	53,000	R=rp R=3rp R=5rp	15 20 23	33 39 40
160	—3.0	0.34	29.2	81,000	R=rp R=3rp R=5rp	40 57 62	18 21 22
160	—2.0	0.80	29.9	54,000	R=rp R=3rp R=5rp	28 42 45	27 33 34
160	—1.0	1.45	30.3	42,000	R=rp R=3rp R=5rp	15 21 24	38 43 48
*190	—3.0	0.83	29.8	54,000	R=rp R=3rp R=5rp	42 63 68	23 28 30
*190	—2.0	1.46	30.2	43,000	R=rp R=3rp R=5rp	30 43 48	31 38 41

* Maximum operating conditions.

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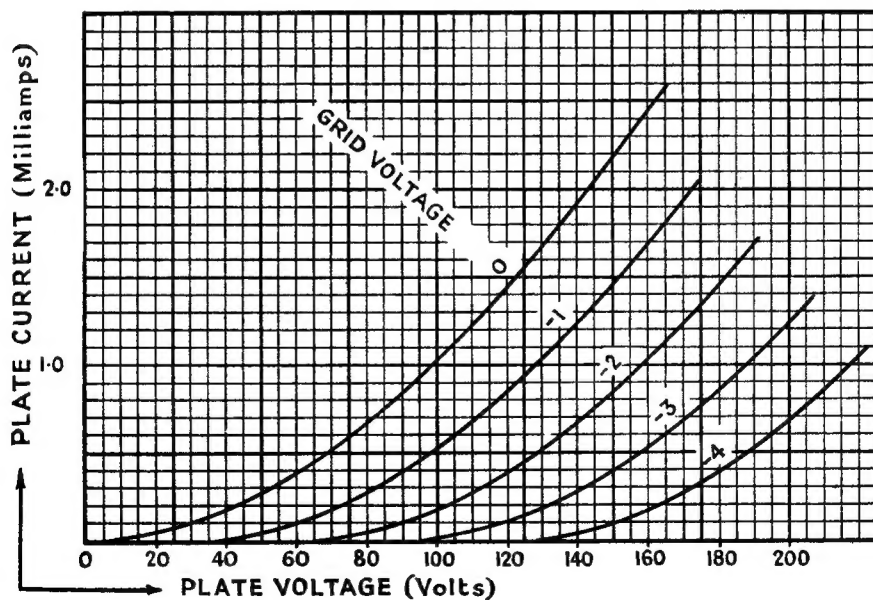
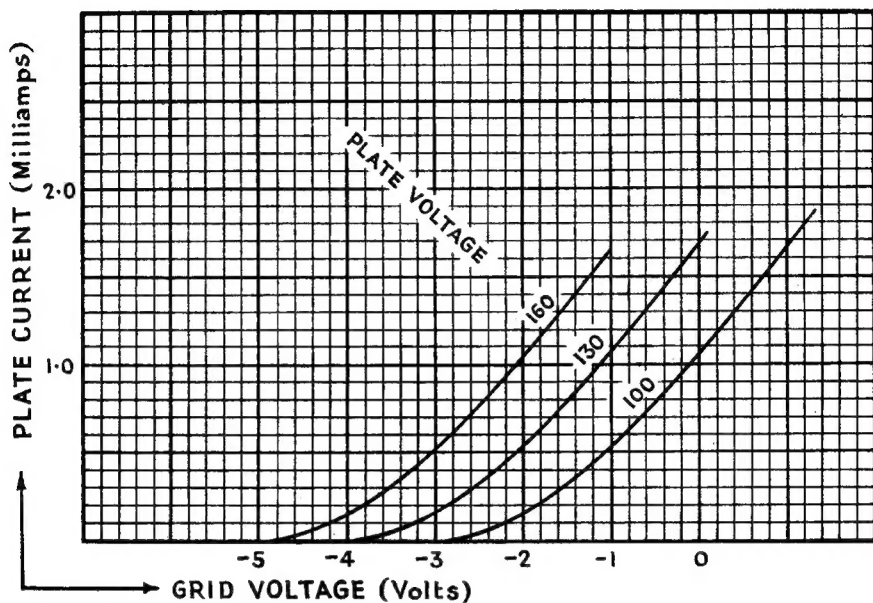
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These curves are taken with direct filament heating, grid and anode voltages being referred to negative end of filament.



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